

Mitigating Human-Elephant Conflict

Human–elephant conflict is a major problem in Kenya. While elephants raid fields and destroy crops, threatening food security among smallholder farmers, poaching and the retaliatory killing of elephants undermine biodiversity conservation objectives. A project in Laikipia County aims to understand and mitigate human–elephant conflict, and to provide information, knowledge, and tools to advance the conservation and management of Kenya's second largest elephant population. Within this project, a smartphone application was recently developed to help monitor elephant movements, allow citizens to report incidents, and provide early warning services.



A mobile phone application was designed to enable local scouts in Laikipia to enter important conservation information – such as the location of a fence break or a crop raid – and to monitor the position of elephant herds. The information is displayed in real time both on the mobile phone and through the Space for Giants website. The purpose of the application is to increase the timeliness of reporting and intervention. It is planned to roll out the application with community scouts working across the landscape so that conservation decisions can be made on a daily basis. (see also results).



An elephant bull breaking through a strong electric power fence. With financial support by the Laikipia Wildlife Forum, Space for Giants worked with local landowners to develop a more appropriate fence design and fence management protocol. It also trained fencers in skills needed to maintain the 163 km West Laikipia Fence. Photo: Max Graham.



Damage by an elephant in a settlement. Photo: Max Graham.



Elephants killed for their ivory in 2012. Space for Giants continues to support monitoring of the illegal killing of elephants. Photo: Batian Craig.



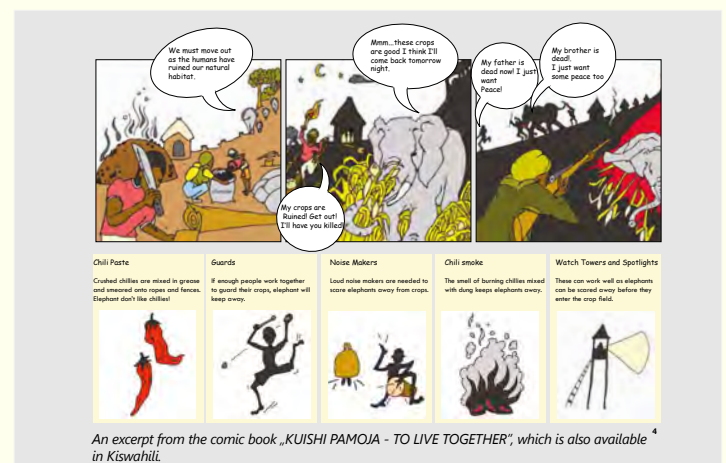
Chilli paste for chilli fences, one of the farm-based deterrents. Photo: Max Graham.

The Space for Giants project aims to enhance the capacity of local communities to mitigate human–elephant conflict by:

- trialling farm-based crop-raiding deterrents such as chilli fences and noise makers (see comic below)
- recording movements of elephants across a landscape to understand their behaviour in relation to risks (retaliation by humans) and opportunities (access to crops)
- systematically monitoring fence breaking and crop raiding across Laikipia to help focus resources and provide a baseline to evaluate the impact of interventions
- identifying individual fence-breaking elephants to assess the impact of management interventions

Results

- Kenya's first elephant conservation and management strategy officially launched in 2012
- Crop raiding reduced by over 50% along some sections of the West Laikipia Fence
- Seven community fence management committees established
- Comic books and information brochures for local communities, scholars, and scouts produced for information dissemination
- Protocol for monitoring and managing fence-breaking elephants developed
- Beta version of the mobile phone elephant application released in December 2012 and currently under trial in the field (see top right)



Project implementation and financing

What started as a PhD research project in 2002 later evolved into the Laikipia Elephant Project (LEP). In 2011, the LEP was institutionalised as "Space for Giants". Funding has been provided by: the British Government's Natural Environment and Social Research Councils, Cambridge University; and the Swiss Agency for Development and Cooperation (SDC), through the CDE-led ESAPP programme; the US Fish and Wildlife Service; the UK Darwin Initiative; the Royal Netherlands Embassy; through the Laikipia Wildlife Forum.

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